

CLAIMS

What is claimed is:

1. A device for ablating a body cavity comprising:

5 an introducer having a distal end and a proximal end and at least one channel therethrough;

a distendable bladder coupled to the distal end and being distendable within the body cavity from a substantially deflated state to an inflated state wherein it approximates an interior of at least a portion of said body cavity that is to be
10 ablated;

an inflation device coupled to the proximal end and in fluid communication with the at least one channel and with an interior of the distendable bladder, wherein activation of the inflation device causes an inflation medium to flow through the at least one channel and into the distendable bladder to thereby inflate the
15 distendable bladder; and

at least one flexible resistive element coupled to the distendable bladder, the resistive element being electrically coupleable to a voltage source and emitting resistive heat when so coupled, the resistive element being coupled to the distendable bladder in a manner so as not to impair movement of the bladder from
20 the deflated to the inflated states.

2. The device according to claim 1, wherein the at least one resistive element is coupled to an inner surface of the distendable bladder.

25 3. The device according to claim 1, wherein the at least one resistive element is coupled to an outer surface of the distendable bladder.

4. The device according to claim 1, wherein the at least one resistive element substantially covers a surface area of the distendable bladder.

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5. The device according to claim 1, wherein the resistive element is coupled to the distendable bladder along a serpentine path so as to cover a predetermined portion of a surface area of the bladder.

5 6. The device according to claim 1, having a plurality of flexible resistive elements.

7. The device according to claim 6, wherein each of the plurality of flexible resistive elements are coupled to the distendable bladder along a serpentine path
10 so as to cover respective predetermined portions of the surface area of the bladder.

8. The device according to claim 6, wherein each of the plurality of flexible resistive elements are separately coupleable to a separate voltage source.

15 9. The device according to claim 1, wherein the body cavity is the uterus, and wherein, when in the inflated state, the distendable bladder approximates an interior of the uterus.

10. The device according to claim 9, having first and second flexible resistive elements, wherein each of the first and second flexible resistive elements are
20 coupled to the distendable bladder along a serpentine path so as to cover predetermined first and second portions of the surface area of the bladder respectively, and wherein when the distendable bladder is in the inflated state, the first and second resistive elements are in thermal contact with first and second
25 portions of the endometrial lining of the uterus.

11. The device according to claim 10, wherein the first and second portions of the endometrial lining are in first and second corneal areas of the uterus.

30 12. The device according to claim 1, wherein the inflation medium is a fluid.

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13. The device according to claim 1, wherein the inflation medium is a gas.

14. The device according to claim 13, wherein the inflation medium is air.

5 15. A device for ablating a body cavity comprising:

an introducer having a distal end and a proximal end and at least one channel therethrough;

an expandable element coupled to the distal end and being expandable
10 within the body cavity from a substantially collapsed state to an expanded state wherein its configuration approximates an interior of said body cavity;

an expansion mechanism coupled to the proximal end of the introducer for moving the expandable structure between the collapsed and expanded states; and

at least one flexible resistive element coupled to the expandable structure,
15 the resistive element being electrically coupleable to a voltage source and emitting resistive heat when so coupled, the resistive element being coupled to the expandable structure so as to move therewith between the collapsed and expanded states.

20 16. The device according to claim 15, having a plurality of flexible resistive elements, each one being individually coupleable to a separate voltage source.

17. The device according to claim 15, wherein the body cavity is the uterus, and wherein, when in the expanded state, the expandable structure has a configuration
25 that approximates an interior of the uterus.

18. The device according to claim 15, wherein when in the expanded state, the at least one resistive element is in thermal contact with a substantial portion of the endometrial lining of the uterus.

19. The device according to claim 15, wherein when in the expanded state, the at least one resistive element is in thermal contact with a portion of the endometrial lining of the uterus.

5 20. A method for ablating a body cavity, comprising the steps of:

providing an introducer having a distal end and a proximal end, an expandable element coupled to the distal end and being expandable within the body cavity from a substantially collapsed state to an expanded state wherein it approximates an interior of a patient's uterus, an expansion device the activation of which causes the expandable element to move between the collapsed and expanded states, and at least one flexible resistive element coupled to the expandable element for movement therewith and electrically coupleable to a voltage source and emitting resistive heat when so coupled;

10 with the expandable element in the retracted state, inserting the device into the patient's uterus so that the expandable element is positioned within the uterus;

15 activating the expansion device so that the expandable element moves from the collapsed to the expanded state;

coupling the at least one resistive element to a voltage source so as to cause it to emit resistive heat; and

20 heating a portion of the endometrial lining of the uterus that is in thermal contact with the resistive element to thereby cause tissue necrosis.

21. The method according to claim 20, wherein the expandable element is a distendable bladder.

25 22. The method according to claim 21, wherein the expansion device is a device for injecting an inflation medium into the distendable bladder.

30 23. The method according to claim 22, wherein the device for injecting is a syringe.

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24. A device for ablating an uterus comprising:

an introducer having a distal end and a proximal end and at least one channel therethrough;

5 a distendable bladder coupled to the distal end and being distendable within the body cavity from a substantially deflated state to an inflated state wherein it approximates an interior of at least a portion of said uterus;

an inflation device coupled to the proximal end and in fluid communication with the at least one channel and with an interior of the distendable bladder,
10 wherein activation of the inflation device causes an inflation medium to flow through the at least one channel and into the distendable bladder to thereby inflate the distendable bladder; and

at least a first long, thin flexible element coupled to the distendable bladder in the region of the bladder in proximity to a first corneal area of the uterus when the bladder is positioned within the uterus, and at least a second long, thin flexible
15 element coupled to the distendable bladder in the region of the bladder in proximity to a second corneal area of the uterus when the bladder is positioned within the uterus, the at least first and second flexible elements being coupled to the distendable bladder in a manner so as to direct expansion of the bladder into the
20 corneal regions of the uterus.

25 25. The device according to claim 24, wherein the first and second flexible elements are arranged to form a pattern of substantially concentric circles, with the center of said substantially concentric circles being substantially aligned in the direction of the center of said respective corneal regions.